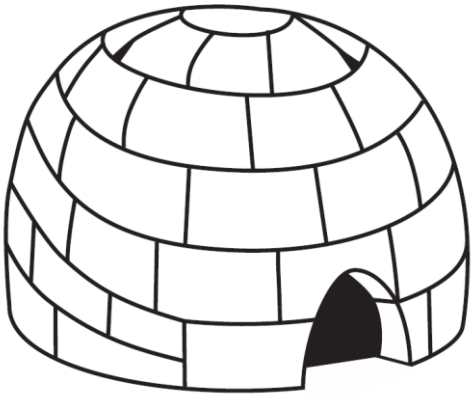
Instructions for Building an Igloo

An igloo is an ice dome approximately ten feet in diameter, sometimes more or less, with a door or access tunnel.

Materials and Tools Needed:



- Accumulated snow
- Shovel
- Measuring tape
- Stick x 2 (24 inches)
- Rope (51/2 feet for an approximate 10-foot diameter igloo)
- Hand saw
- Waterproof gloves

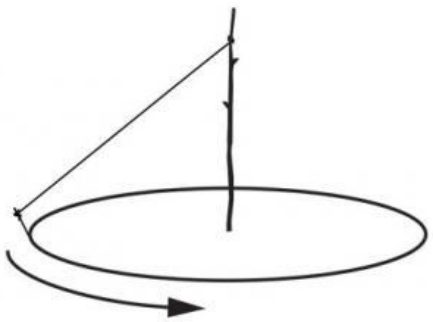
Instructions:

1. As with any building site, success is all about location. You want a place that is level enough and large enough to accommodate the igloo you plan to build.

2. Once you have determined the location, it is time to level the ground. You will want to level an area somewhat larger than the igloo that you plan to build.

3. Scrape the area down using the backside of a shovel, fill in the dips and divots with snow. It does not have to be perfect, but it should be flat enough and hard-packed enough to build on. If it isn't, you can risk collapsing your structure. At this point, it is time to cut a circle into the snow.

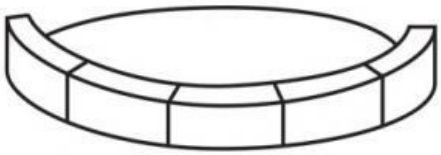
4. Plant a stick in the center of your building area and attach a rope that will reach to where you plan to build the wall. Tie a stick to the other end of the rope. Now, using that stick to cut the snow, draw a circle in the ground. This will give you the circumference of the igloo and the baseline for placing the blocks.



5. Stomp down on the area until the snow is firm and level, getting the snow as hard packed as possible. Let the ground rest for 30 minutes.

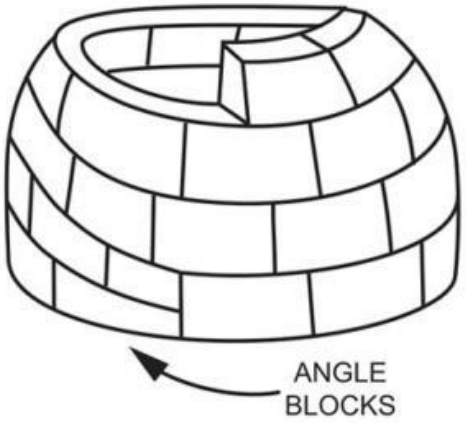
6. Use a saw to cut blocks out of the packed snow. Cut blocks about 2 feet long, 1 foot wide, and 6 inches deep. They do not have to be perfect, but a similar size is needed. The best method for doing this is cutting one large block then slicing it into smaller blocks.

7. Begin stacking the blocks lengthwise around the circle. This layer will stand up straight without leaning in. Work from the inside of the circle and pack the blocks so they fit tightly together. Work all the way around the circle; a door will be cut later on so you don't have to leave an opening at this point.



8. When the row is complete, smooth out the surface and fill any cracks from the inside.

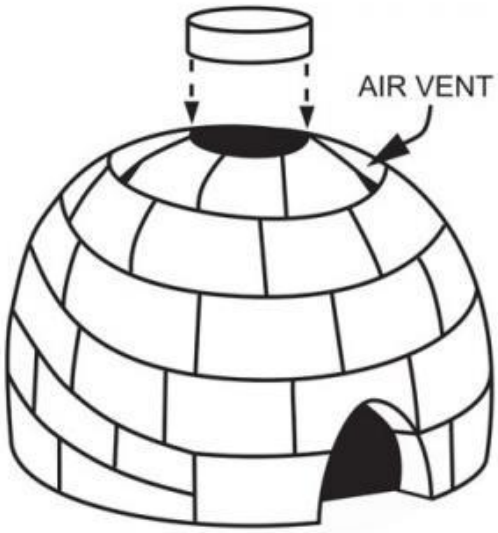
9. Cut the tops of the first several blocks off on an angle to form a slope. This will make the rest of the igloo spiral up and make it more stable.



10. Stack the second course of blocks the same way you did the first. Start on the sloped blocks and swirl your way around. Lean these blocks slightly inward to begin forming the dome shape.

11. Continue removing blocks from inside the hard packed area as you need them. Stack the third course of blocks in a staggered manner, following the sloping spiral. Make sure everything is fitting tight and leaning slightly inside.

12. Continue stacking layers for 2 to 4 more rows until there is a less than 2-foot opening in the top.



13. Cut the last block slightly larger than the top opening. Push the block up through the opening then, from the inside, cut around it so it fits perfectly. Make sure it is tight.

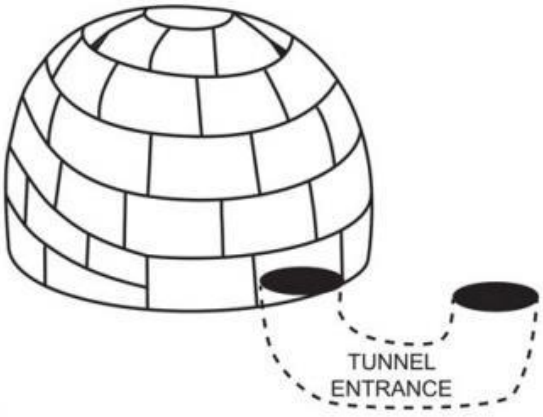
14. Cut out a door from the inside out no bigger than what you need to climb in and out.

15. Go outside the igloo and fill gaps and cracks in tightly with handfuls of snow. Leave a gap or two near the top for ventilation.

16. Cut the floor in the igloo down further if you need more space and use extra blocks as steps and furniture.

Variation

You can dig out an entrance tunnel rather than making a simple hole in the base. To do this you will dig beneath the wall and come up inside the igloo. The hole should be just inside the wall, connecting with a tunnel that runs to another entrance hole outside. You can even put a bend in it to keep air and snow from blowing inside.



Finishing Touches

Once the gaps in the walls have been filled with snow, you are ready to seal the igloo. This is done with a small fire lit inside. The heat melts the interior of the snow blocks, which quickly turns to ice in the cold air. This process continues over several days until the snow blocks are turned to ice. Once this is complete, the structure will be very strong.